



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,004	10/14/2003	Xuefeng T. Tao	GP-304192	5851

7590

07/15/2005

Leslie Hodges
General Motors Corporation, Legal Staff
Mail Code: 482-C23-B21
P.O. Box 300
Detroit, MI 48265-3000

EXAMINER

LOUIS JACQUES, JACQUES H

ART UNIT	PAPER NUMBER
----------	--------------

3661

DATE MAILED: 07/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,004

Applicant(s)

TAO ET AL.

Examiner

Jacques H. Louis-Jacques

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10142003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims under Examination

1. Claims 1-8 are presented for examination.

Drawings

2. The drawings are objected to because the boxes must be properly labeled. For example, box 14 should read "Engine", box 56 should read "Motor/Generator", etc. If the boxes are too small to incorporate their appropriate labels, Applicant is suggested to a "Legend table" listing the components with their corresponding names and numbers. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuras et al [6,343,250].

Kuras et al discloses a method and apparatus for smoothing the output of a hydrostatic transmission near zero speed. The method and apparatus, according to Kuras et al, determine the speed of a transmission member in a hybrid powertrain, which includes a hybrid transmission (e.g., 16) having at least one motor (e.g., 52) operatively coupled to the transmission member and at least one rotation sensor (e.g., 76, 80) for operatively sensing rotation of said preselected transmission member. See figure 1. According to Kuras et al, there is provided providing a first signal indicative of the speed of the transmission member calculated from the output from the at least one rotation sensor and providing a second signal indicative of the speed of the transmission member calculated from the speed of the at least one motor and an effective rotation ratio between the transmission member and the at least one motor. See column 5, lines 49-67 and column 6, lines 1-11. According to Kuras et al, the transmission member comprises an output member (column 5, lines 62-64) and the speed of the at least one motor is provided by a motor controller (column 6, lines 25-31). In addition, Kuras et al discloses conditions

indicating that the first signal is unreliable based on the speed of the transmission member below a predetermined threshold and a loss of sensor output (column 7). Kuras et al discloses that either of the transmission speeds can be used as the transmission speed (column 5, lines 65-67). Although Kuras et al does not specifically disclose "selecting as the speed of the transmission member the second signal when predetermined conditions indicate that the first signal is unreliable", it would have been obvious to one skilled in the art at the time of the invention to be motivated to modify the method and apparatus of Kuras et al by incorporating a selecting step to select one of the transmission speeds because such modification eliminate a discontinuity in the speed of the transmission, thereby the transmission speed would be continuously controlled and monitored.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5,403,244	Tankersley et al	Apr. 1995
5,833,570	Tabata et al	Nov. 1998
5,983,152	Genzel et al	Nov. 1999
6,090,007	Nakajima et al	Jul. 2000
6,186,255	Shimasaki et al	Feb. 2001
US 20030078134	Kojima et al	Apr. 2003

Art Unit: 3661

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacques H. Louis-Jacques whose telephone number is 571-272-6962. The examiner can normally be reached on M-Th 5:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jacques H Louis-Jacques
Primary Examiner
Art Unit 3661

/jlj

Jacques H. Louis-Jacques
JACQUES H. LOUIS-JACQUES
PRIMARY EXAMINER